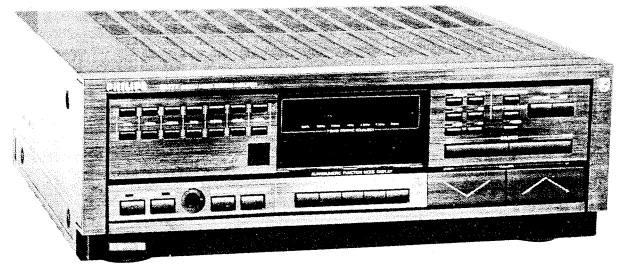
Amplifier 70FA777/00R/05R

Service
Service
Service



Service Manual

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(GB)
Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

(NL)
Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.

(D)
Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden für Reparaturen sind Original-Ersatzteile zu verwenden.

(I)
Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati pezzi di ricambiago identici a quelli specificati.

(F)
Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

DocumentationTechnique Service Dokumentation Documentazione di Servizio Huolte-Ohje Manual de Servicio Manual de Serviço

PHILIPS

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

Subject to modification
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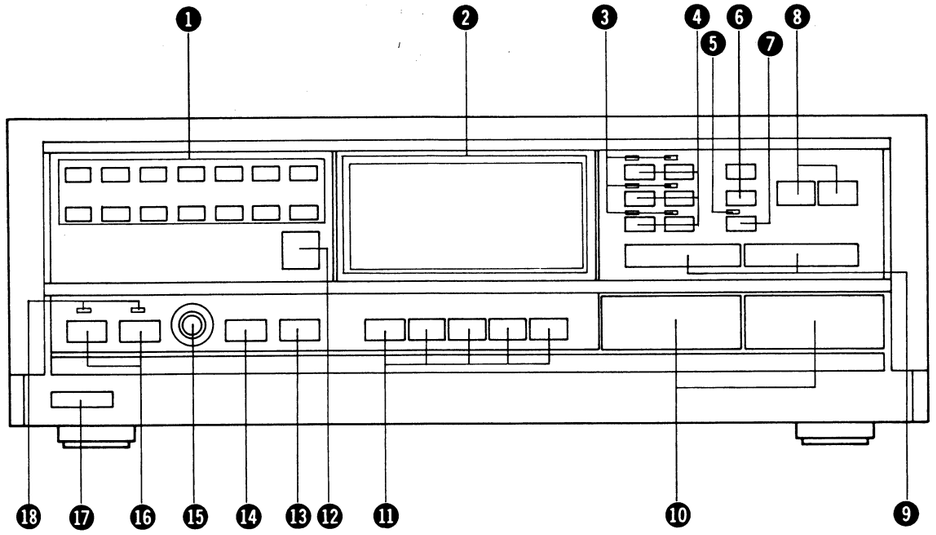
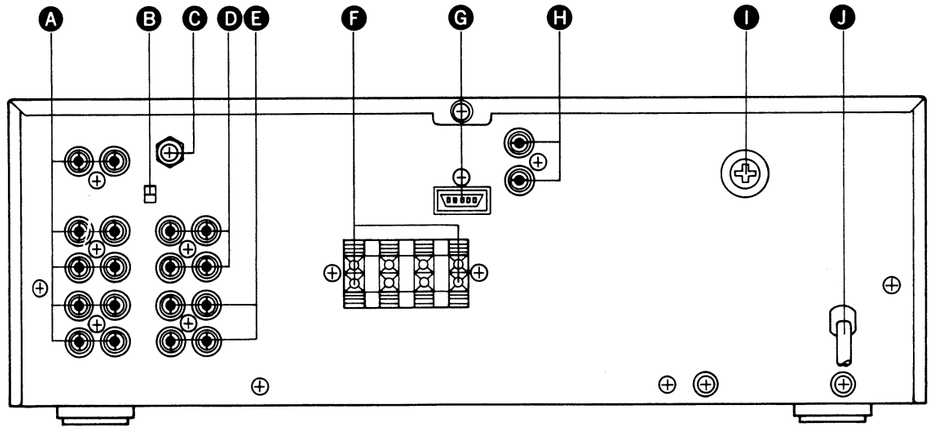
CS 11 392

SPECIFICATION

General	Nominal value	Typical value
Mains voltage	: 220V ~ (/00R) : 240V ~ (/05R)	: 220V ~ (/00R) : 240V ~ (/05R)
Mains frequency	: 50 – 60 Hz	: 50 – 60 Hz
Power consumption	: 310W	: 380W max
Dimensions (WxHxD)	: 360 x 120 x 300 mm	: 360 x 120/128 x 300 mm
Weight	: 8.3 kg	: 8.3 kg
Amplifier		
Output power	: 75W in 8Ω (IEC)	: 75W in 8Ω (IEC)
Distortion		
T.H.D.	: ⩽0.05% at 1 kHz : ⩽0.1% at 63 Hz–12.5 kHz (IEC)	: ⩽0.015% at 1 kHz : ⩽0.1% at 65 Hz–12.5 kHz (IEC)
Intermodulation	: ⩽0.05% at 60/7000 Hz 4:1	: ⩽0.02% at 60/7000 Hz 4:1
Frequency characteristic		
Phono input, tone control	: from 20 Hz – 20 kHz ±1.5 dB (IEC)	: from 20 Hz – 20 kHz ±0.5 dB (IEC)
Other inputs, neutral	: from 20 Hz – 20 kHz ±2 dB	: from 10 Hz – 30 kHz ±2 dB
Frequency equalizer control	: at 64 Hz +10 dB to –10 dB ±2 dB	: at 64 Hz +10 dB to –10 dB
	: at 150 Hz +10 dB to –10 dB ±2 dB	: at 150 Hz +10 dB to –10 dB
	: at 400 Hz +10 dB to –10 dB ±2 dB	: at 400 Hz +10 dB to –10 dB
	: at 1 kHz +10 dB to –10 dB ±2 dB	: at 1 kHz +10 dB to –10 dB
	: at 2.5 kHz +10 dB to –10 dB ±2 dB	: at 2.5 kHz +10 dB to –10 dB
	: at 6.3 kHz +10 dB to –10 dB ±2 dB	: at 6.3 kHz +10 dB to –10 dB
	: at 15 kHz +10 dB to –10 dB ±2 dB	: at 15 kHz +10 dB to –10 dB
Signal/noise ratio weighted (A-curve)		
Phono input	: for 75W output ⩾ 77 dB (IEC)	: for 75W output ⩾ 77 dB (IEC)
Other inputs	: for 75W output ⩾ 95 dB (IEC)	: for 75W output ⩾ 95 dB (IEC)
Channel separation	: at 1000 Hz ⩾ 55 dB	: at 1000 Hz ⩾ 65 dB
	: at 250 Hz – 10 kHz ⩾ 35 dB	: at 250 Hz – 10 kHz ⩾ 45 dB
Input sensitivity/Input impedance		
Audio		
Phono	: 2.8 mV/ 47 kΩ	: 2.5 mV/ 47 kΩ
Tuner/CD/Aux/Tape	: 150 mV/ 25 kΩ	: 150 mV/25 kΩ
TV/Video	: 150 mV/ 25 kΩ	: 150 mV/25 kΩ
Output level/Output impedance		
Tape (Audio)	: 220 mV/ 3.5 kΩ (Phono 5.0 mV 1 kHz input)	: 220 mV/ 3.5 kΩ (Phono 5.0 mV 1 kHz input)





CONNECTIONS AND CONTROLS

1	Graphic equalizer switch	SR01~SR14	16	LS A/B switch	SR15, SR16
2	Display	VR01	17	Mains switch	SP01
3	Volume preset, memory indicator	DR13, DR15~DR19	18	LS A/B indicator	DR20, DR21
4	Volume preset, memory switch	SR19, SR23~SR27			
5	Muting indicator	DR14	A	Input	J401, JS01, JS02
6	Copy switch	SR37, SR38	B	Mode switch	SS71
7	Muting switch	SR20	C	Ground terminal	J031
8	Video/tape monitor switch	SR21, SR22	D	Video input/output	JS71
9	Balance left/right switch	SR28, SR29	E	Tape input/output	JS72
10	Volume up/down switch	SR30, SR31	F	LS output A/B	J751
11	Function switch	SR32~SR36	G	Convenient bus	JV02
12	Remote control sensor	QR01	H	Remote control bus	JV01
13	EQ flat/reset switch	SR18	I	Fuse holder	J001
14	EQ/analyse switch	SR17	J	Mains cord	W001
15	Headphone socket	JW01			

Idling Current

SK... SWITCH	SIGNAL	TO	VOLUME	ADJUST	OSCILLOSCOPE	D.C. METER INDICATOR
			Min.	Lch R719		Lch TP1(+), TP3(–) (Both ends of R755) DC3mV (15mA)
				Rch R720		Rch TP2(+), TP4(–) (Both ends of R756) DC3mV (15mA)

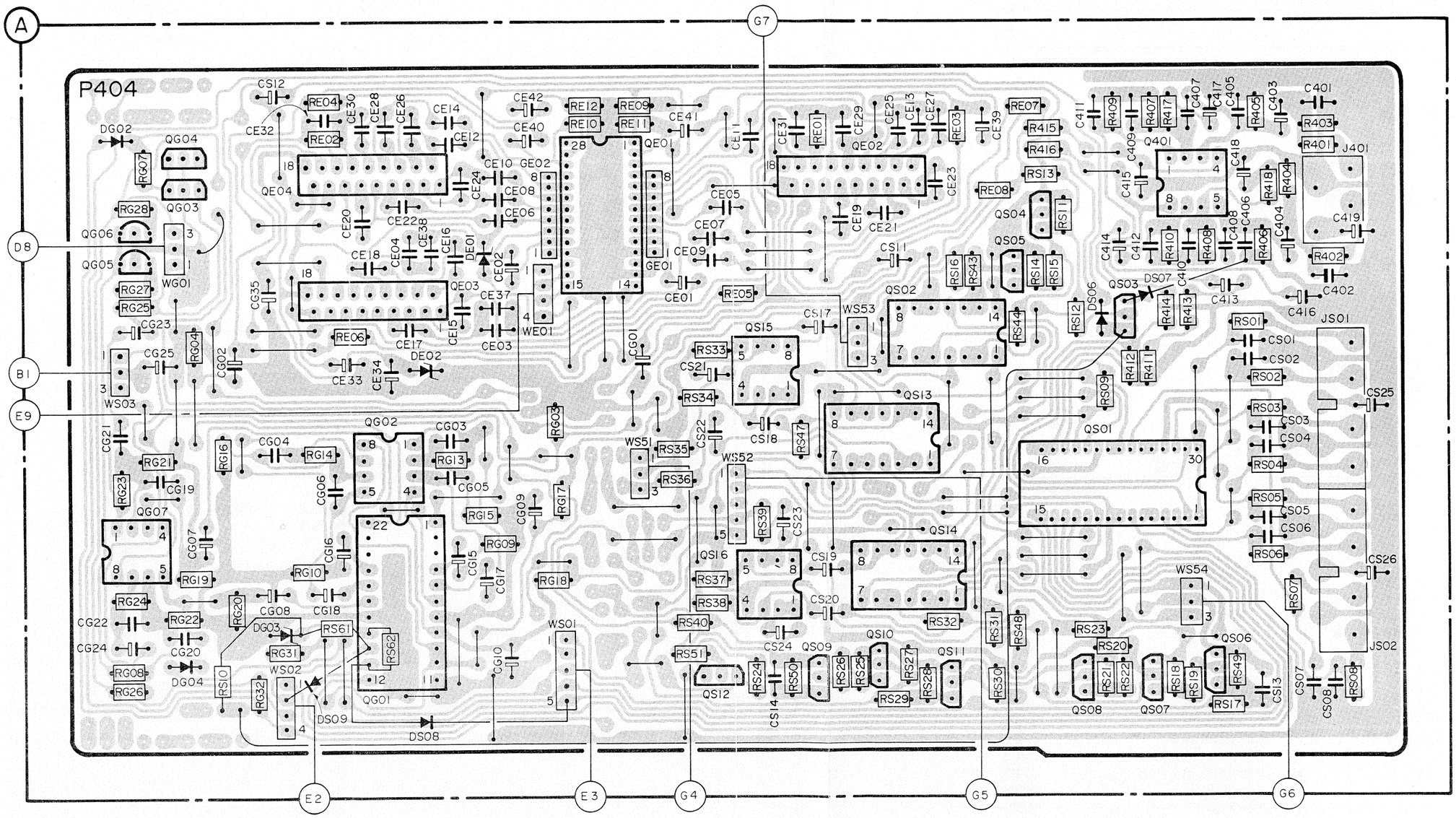
Carbon film 0.125 W or 0.2 W	70°C	5%	
Carbon film 0.25 W or 0.33 W	70°C	5%	
Metal film 0.25 W or 0.33 W	70°C	5%	
Carbon film 0.5 W	70°C	5%	
Carbon film 0.67 W	70°C	5%	
Carbon film 1 W or 1.15 W	70°C	5%	
Ⓒ Chip component			

Ceramic plate Tuning ⩽ 120 pF NP.0 Others		2% –20/+80%
Polyester flat foil		10%
Metalized polyester flat film		10%
Polyester flat foil small size (Mylar)		10%
Polysterene film/foil		1%
Tubular ceramic		
Miniature single		
Subminiature tantalum		± 20%

*a	= 2.5 V
b	= 3.15 V or 4 V
c	= 6.3 V
d	= 10 V
e	= 16 V
f	= 25 V
g	= 40 V
h	= 63 V
j	= 100 V
l	= 125 V
m	= 150 V
n	= 160 V
q	= 200 V
r	= 250 V
s	= 300 V
t	= 350 V
u	= 400 V
v	= 500 V
w	= 630 V
x	= 1000 V
A	= 1.6 V
B	= 6 V
C	= 12 V
D	= 15 V
E	= 20 V
F	= 35 V
G	= 50 V
H	= 75 V
I	= 80 V

WIRING DIAGRAM

R	RG19～RG28 RG16 RE04 RE06 RG15 RE09～RE12 RS33～RS40 RE01 RE03 RE08 RE07 R407～R414 R417 R401～R406
	RG08 RG07 RG04 RG32 RG31 RE02 RG09 RG03 RE05 RS24 RS50 RS48 RS16 RS43 R415 R416 RS09 R418 RS01～RS08
	RS10 RG10 RG14 RS61 RS62 RG13 RG17 RG18 RS51 RS47 RS25～RS32 RS44 RS11～RS15 RS17～RS23 RS49
C	CG19 CG25 CS12 CE32～CE34 CE30 CE28 CE22 CE14～CE18 CE37 CG15 CG17 CE01 CE09 CE07 CE05 CE11 CS17～CS20 CS11 CE23 CE39 C409～C415 C417 C401～C408 C416 CS25
	CG07 CG04 CG06 CG18 CE20 CE26 CE38 CE12 CE10 CE03 CG03 CG10 CG01 CS21～CS24 CE25 CE13 CE27 C418 C419 C426
	CG02 CG08 CG16 CG35 CE04 CE24 CE08 CE06 CE02 CG05 CE40～CE42 CE31 CE29 CE19 CE21 CS13 CS01～CS08
Q	QG03～QG07 QE04 QG02 QG01 QE03 QE01 QS09～QS16 QE02 QS01～QS05 Q401
D – G	DG02 DG04 DG03 DS09 DE02 DS08 GE02 GE01 DS06 DS07



SCHEMATIC DIAGRAM

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SCHEMATIC DIAGRAM

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SCHEMATIC DIAGRAM

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SCHEMATIC DIAGRAM

~ RX34	RX28 ~ RX31	RR18 RU53~RU55	RU02 RU01 RR11 RR18	RR31 ~ RR36 RR12 ~ RR17	R
RX13 ~ RX18	RX19 ~ RX24 RR14 RR15 RU44 RU45	RU04 ~ RU06 RU35 RU36 RR16 RR17	RU43 RU42 RU24 ~ RU26 RU07 ~ RU13	RU41 RU14 ~ RU21 RR12 RR13 RR26 RR21 ~ RR25	
23	CR01 CU08	CU03 CU01 CU02 CU15	CR01		C
CX07 ~ CX10	CX11 ~ CX14	CU04 CU05 CU06 CU11 CU12 CU10 CU09 CU13			
15 QX06 DX01 ~ DX07 QX04	DR15 ~ DR19 QX05	QU18 DU04 ~ DU06 QU03 QU02 DR01 ~ DR06 QU17 QU16 DD4 DD3 DU02 QU01	DU01 VR01 DU03 QU11 QU10 QR01 QU04 ~ QU08 DR07 ~ DR10	DU07 DR11 ~ DR14 DR24 DR25 QR03 QR02 DR13 ~ DR21	Q – D – V
GX02	GU02	DU12 DU14 DR21 DR22 XU01	GU01 GR01	SR37 SR38 SR01 ~ SR18 SR19 ~ SR36	S – X – G

	QA	QB	RA	RB	RC	RD	C
DD1	QX11	QX12	RX46	RX47	RX48	RX49	CX27
DD2	QX13	QX14	RX50	RX51	RX52	RX53	CX28
DD3	QU12	QU13	RU27	RU28	RU29	RU30	CU16
DD4	QU14	QU15	RU31	RU32	RU33	RU34	CU17

	E	C	B
QX11	-28.3V	2.7V	-28.2V
QX12	5.7V	-24.9V	5.6V
QX13	-28.3V	2.7V	-28.2V
QX14	5.7V	-25.0V	5.6V

	E	C	B
QU12	-28.4V	2.2V	-28.3V
QU13	5.8V	-12.4V	5.7V
QU14	-28.4V	2.2V	-28.3V
QU15	5.8V	12.9V	5.7V
QU18	0V	-0.6V	5.1V

NOTE ON SAFETY:
Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol ⚠ . Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

WIRING DIAGRAM

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WIRING DIAGRAM

RX35 RU28～RU30 RU32～RU34 RU27 RU01 RU26 RU07～RU11 RU15～RU20 RU12 RU13 RU45 RU44 RX46～RX53 RX01～RX03 RX25～RX31 RX04～RX06 RX10～RX12

RU02 RU31 RU42 RU14 RU41 RU43 RX36～RX40 RX32 RX33 RX34 RX41 RX55 RX13 RX14 RX07～RX09 RR31～RR36 RX16～RX18

RRI8 RR24 RR21 RR25 RR11 RR12 RR14 RR13 RR15 RX19～RX21 RX15 RX54 RX22～RX24

CUI6 CU03 CUI7 CU04 CU05 CU01 CU02 CU06 CU09 CU08 CUI1～CUI4 CX22～CX24 CX17～CX21 CXI6 CX15 CXII CX12 CX26 CX05 CX06

CR01 CX28 CX27 CX07 CX08 CX25 CX01～CX04 CX09 CX10 CX13 CX14

DU02 XU01 DR03 DR02 DRI0 DR09 DR01 DU03 DU01 DR05 DR04 DU06 DR08 DX09～DX13 DU07 SR32～SR36 DU08 DX08 DRI3 DRI5～DRI9 DU4 SRI9～SR31 DX01～DX06 SR38 SR37 DRI4 DX07 DR25 DR24

QUI2～QUI4 QR01 VR01 GR01 QU01 GU01 QU04～QU08 GX01 QX06～QX10 QX01 QXI5 GX02 QXI1～QXI4 GX01 QX02～QX05 QR03 QR02

RS79～RS82 RS71 RS72

RS77 RS74 RS83～RS86

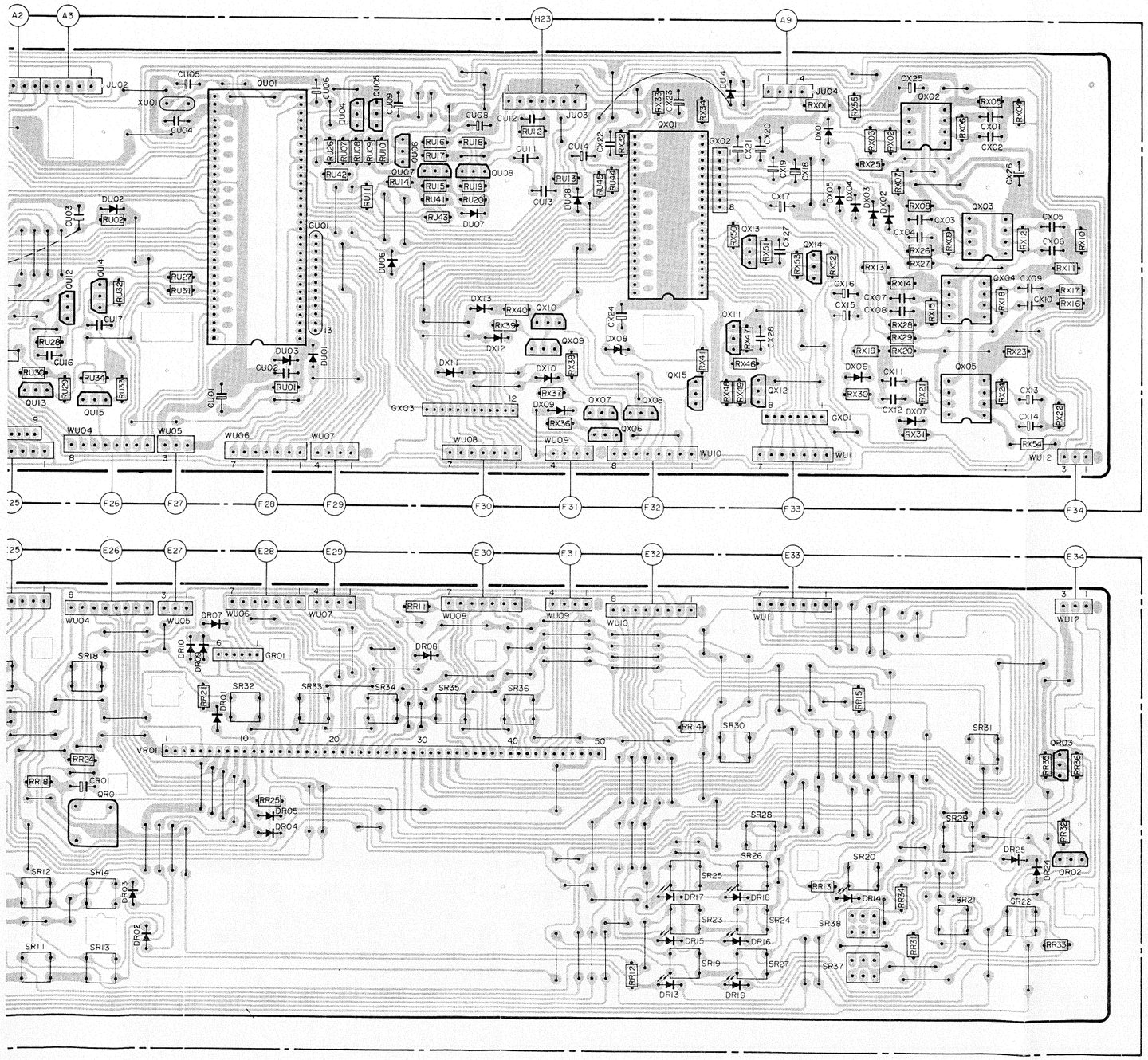
RV01～RV03

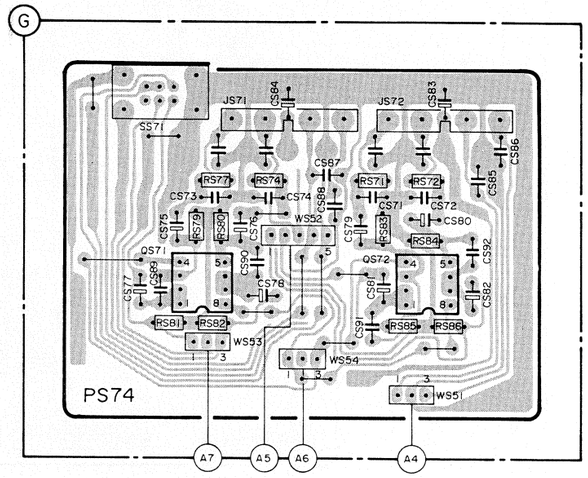
CS73～CS78 CS90 CS84 CS87 CS88 CS71 CS72 CS92 CS85 CS86

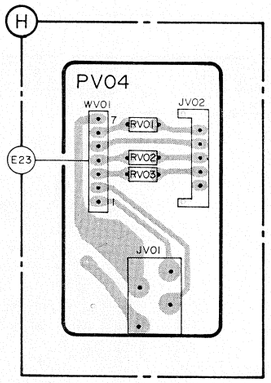
CS89 CS79 CS91 CS80～CS83 CW01 CW02

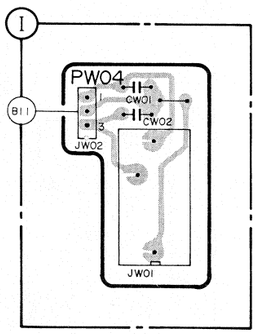
SS71

QS71 QS72



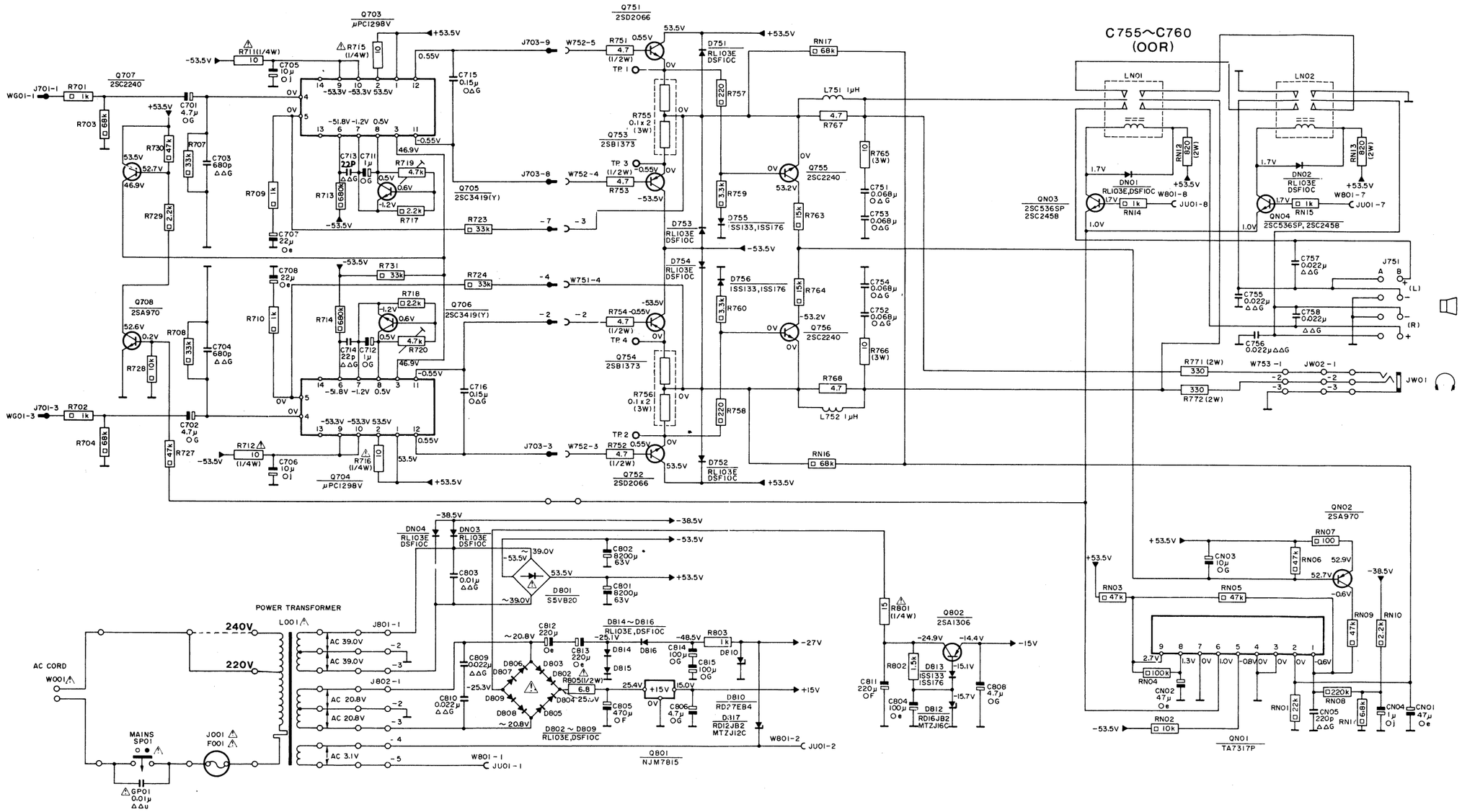






SCHEMATIC DIAGRAM

R	R701 ~ R704 R728 ~ R730 R727 R707 R708 R709 ~ R712 R713 ~ R720 R731 R723 R724 R751 ~ R754 R755 R756 R757 ~ R760 RN17 RN16 R765 ~ R768 RN13 RN12 RN14 RN12 R771 R772 RN15 RN13	R
	R805 R803 R801 R802 RN03 RN04 RN02 RN05 RN06 RN01 RN07 RN08 ~ RN11	
C	C701 ~ C704 C705 ~ C710 C711 ~ C714 C715 C716 C751 ~ C754 C755 ~ C758	C
	C803 C809 C810 C812 C813 C802 C801 C805 C814 C815 C806 C811 C804 C808 CN02 CN03 CN05 CN04 CN01	
Q — D	Q708 Q707 Q703 Q704 Q705 Q706 DN04 DN03 D802 ~ D809 D801 D814 ~ D816 Q751 ~ Q754 Q801 D751 ~ D756 D810 Q755 Q756 D817 Q802 D812 D813 QN03 DN01 QN01 QN04 DN02 QN02	Q — D
G-L-S-F	GP01 SP01 F001 L001 L751 L752 LN01 LN02	G-L-S-F



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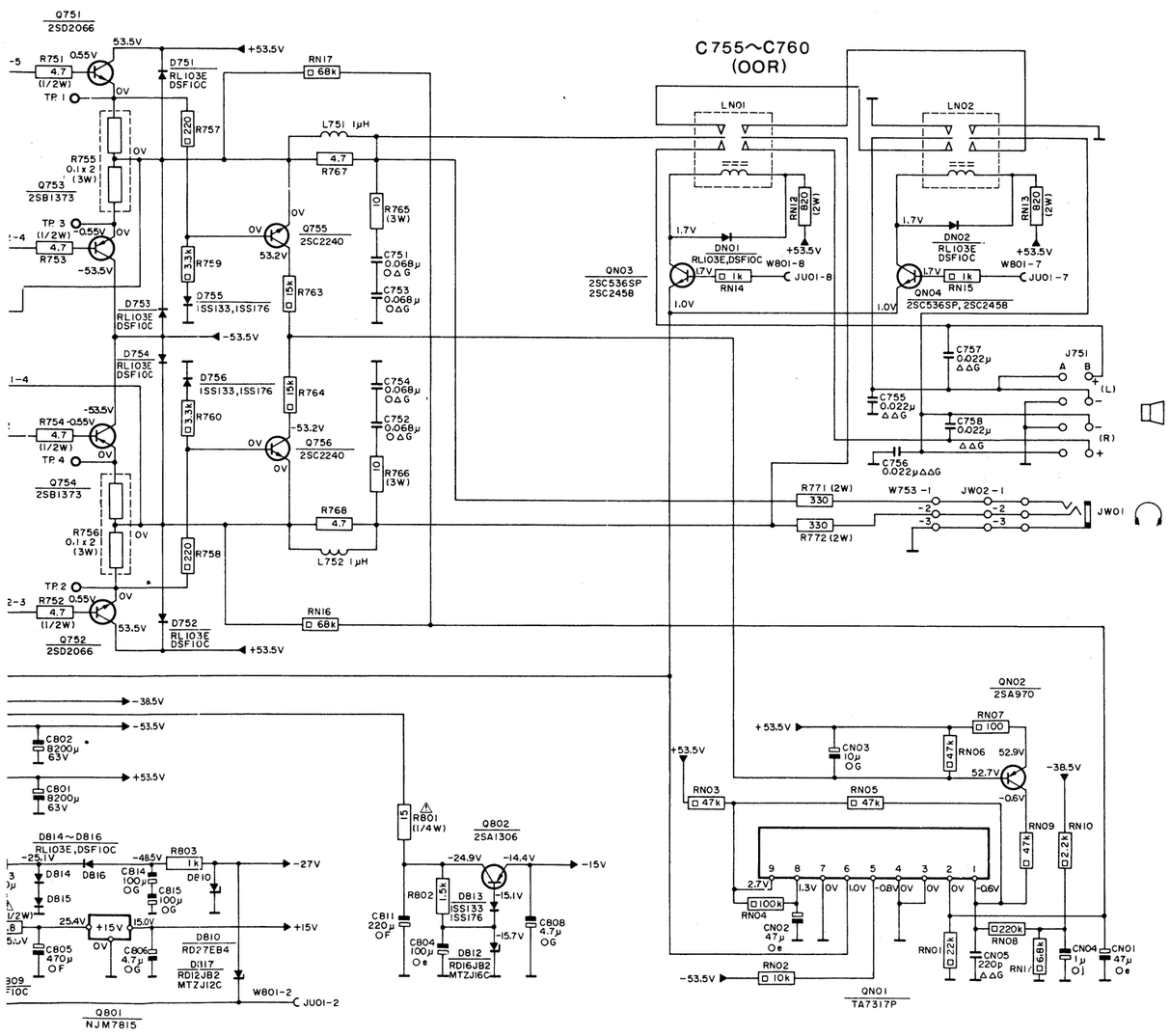
SCHEMATIC DIAGRAM

R751 ~ R754 R755 R756 R757 ~ R760 RN17 RN16 R765 ~ R768 RN13 RN12 RN14 RN12 R771 R772 RN15 RN13	R
R803 R801 R802 RN03 RN04 RN02 RN05 RN06 RN01 RN07 RN08 ~ RN11	
C751 ~ C754 C755 ~ C758	C
C802 C801 C805 C814 C815 C806 C811 C804 C808 CN02 CN03 CN05 CN04 CN01	
D814 ~ D816 Q751 ~ Q754 Q801 D751 ~ D756 D810 Q755 Q756 D817 Q802 D812 D813 QN03 DN01 QN01 QN04 DN02 QN02	Q - D
L751 L752 LN01 LN02	G - L - S - F



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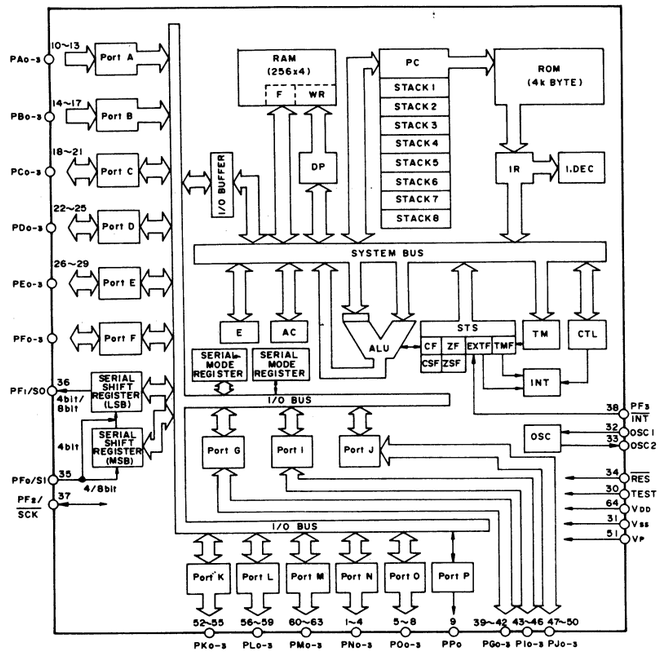

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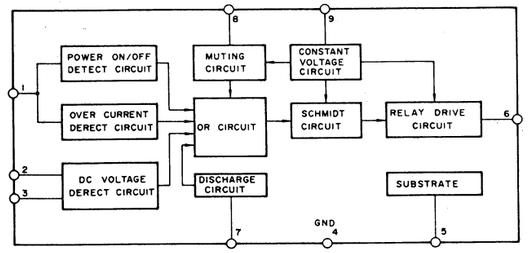

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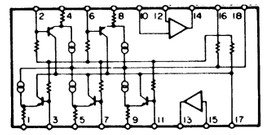

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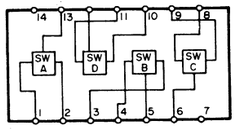

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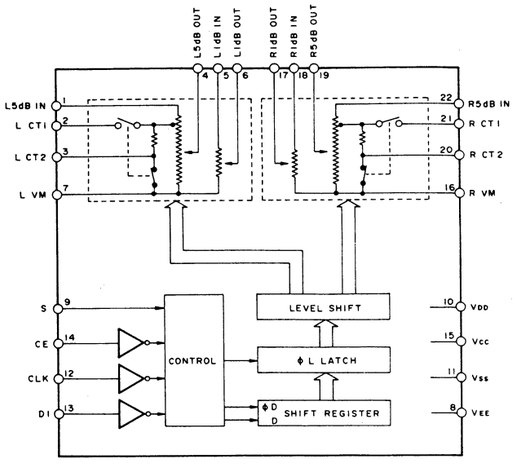

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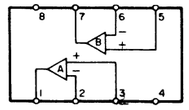

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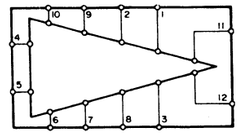
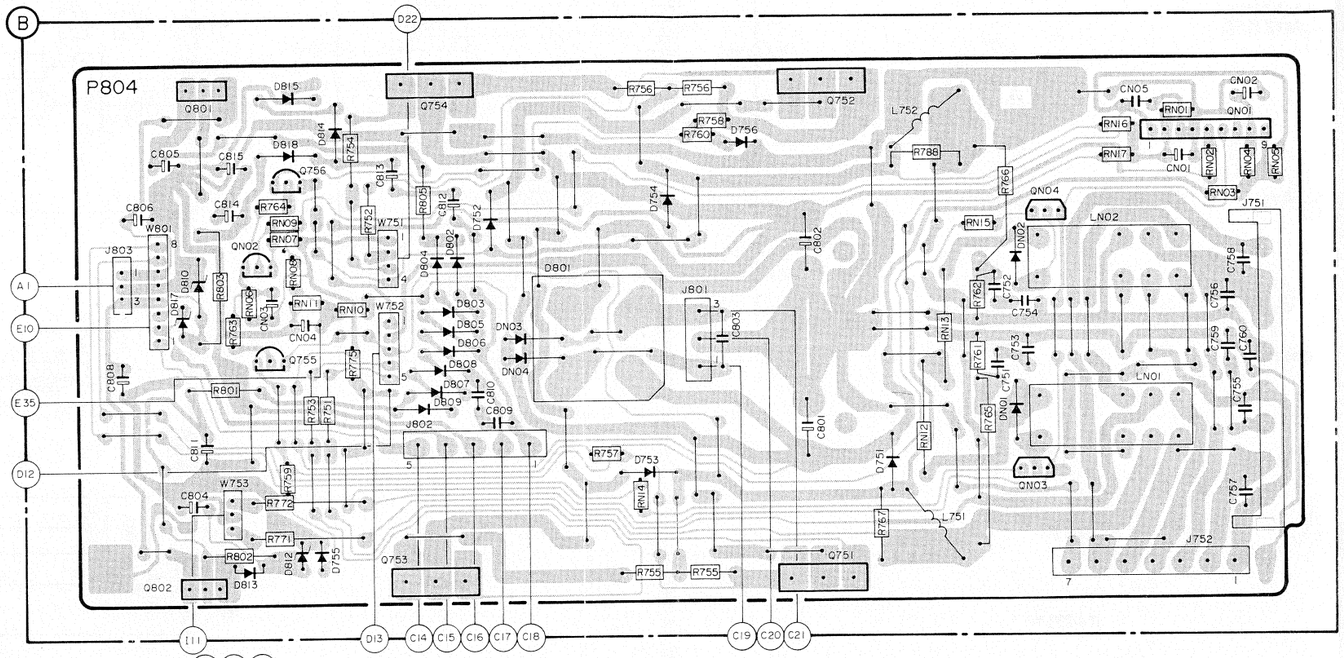


WIRING DIAGRAM

R	R801~R803 RN06~RN11 R775 R805 R755~R758 R760 R767 R788 RN12 RN13 RN15 R765 R766 RN16 RN17 RN01 RN05 R713 R723 R717
	R764 R759 R772 R771 R751~R754 RN14 R720 R718 R761 R762 R708 R730 R724 R714 R731 R709~R716 R701~R704 R727 R728 R719
C	C808 C804~C806 C815 C814 C813 C810 C809 C801~C803 C751~C754 C721 CN05 CN01 C755~C760 CN02
	C811 CN03 CN04 C712 C702 C704 C714 C716 C718 C705~C708 C717 C713 C703 C711 C701 C715
D - S	D817 D810 D812 D815 D818 D755 D801~D809 D752 SP01 DN03 DNC4 D754 D753 D756 D751 DN02 DN01
G - L - Q	Q801 Q802 QN02 Q755 Q756 Q754 Q753 GP01 Q752 Q751 Q706 L752 L751 Q704 Q708 QN03 QN04 LN02 LN01 QN01 Q703 Q707 Q705


B
D22
P804
Q801
D815
Q754
R756
R758
R760
D756
Q752
L752
R788
CN05
CN02
RN01
QN01
RN16
RN17
CN01
RN02
RN04
RN03
J751
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C815
D818
Q756
C813
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R754
R805
C812
D752
C806
C814
R764
RN09
RN07
W801
J803
QN02
RN08
RN06
D754
D802
D804
D801
J801
C802
R766
QN04
LN02
RN15
DN02
C758
C756
C759
C760
C754
R762
C752
R763
C753
C751
DN01
LN01
C755
C757
A1
E10
E35
D12
C808
C803
D803
D805
D806
D808
D807
D809
C810
C809
DN03
DN04
J802
R757
D753
RN14
R753
R751
R801
C811
W753
R759
R772
C804
R771
R802
D812
D755
D813
Q802
Q753
R755
Q751
R765
R767
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RN13
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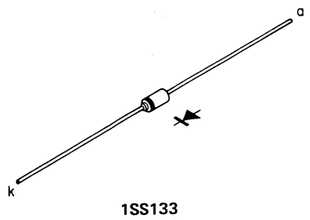
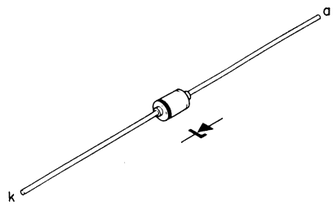
R805
R775
Q755
CN04
RN11
RN10
RN09
RN07
RN08
RN06
C807
R763
D817
D810
R803
C805
C815
D818
D814
R754
C813
C812
D752
C806
C814
R764
RN09
RN07
W801
J803
QN02
D804
D802

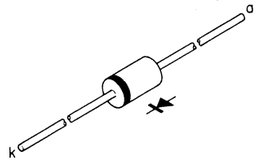
Semiconductor Layout



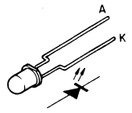
1SS133
1SS176
MA165



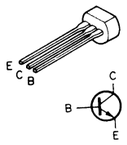
RD5.1JB2/MTZJ5.1B
RD5.6JB2/MTZJ5.6B
RD6.8JB2/MTZJ6.8C
RD12JB2/MTZJ12C
RD16JB2/MTZJ16C
RD27EB4



DSF10C
RL103E



LT3D8B



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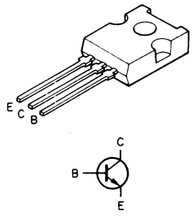

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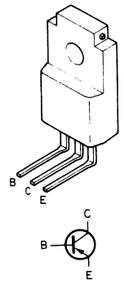

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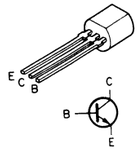

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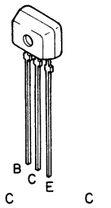
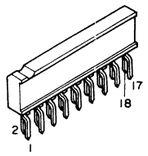
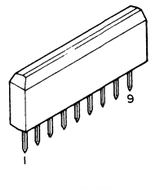


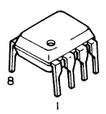
2SA608SP
2SA933S
2SA1048
2SA1309A
2SC536SP
2SC1740S
2SC2458
2SC3311A



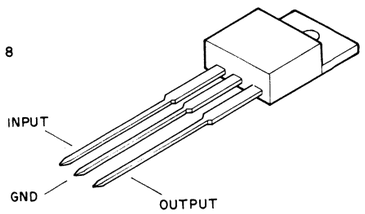
BA3812L



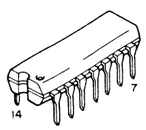
TA7317P



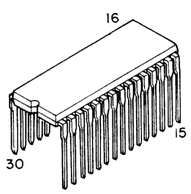
NJM4558D-D



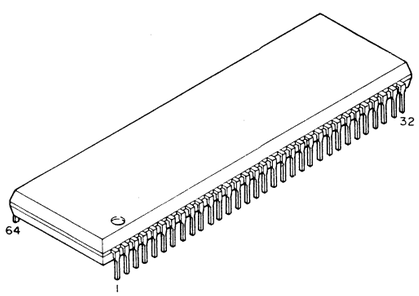
NJM7815A



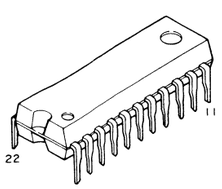
LC4966



LC7821

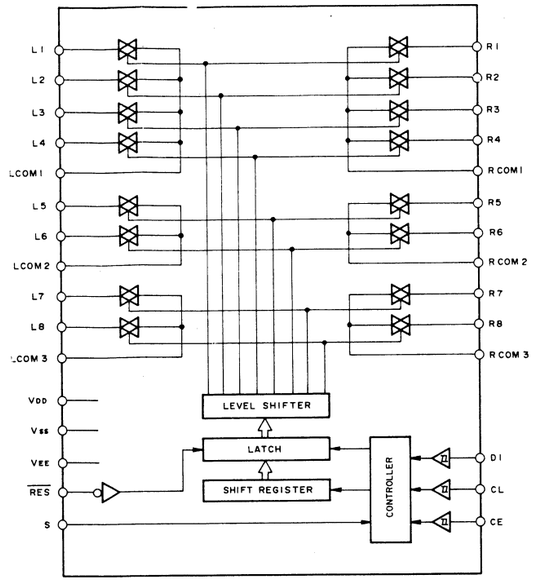


LC6554H

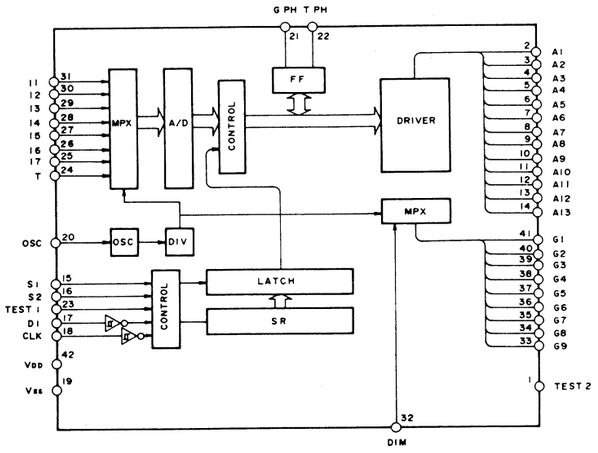


LC7535

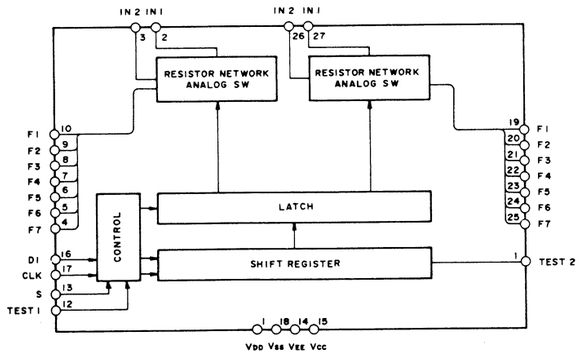
LC7821

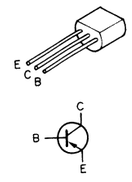


LC7565



LC7522





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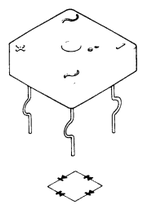
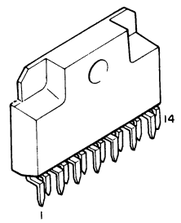
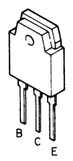


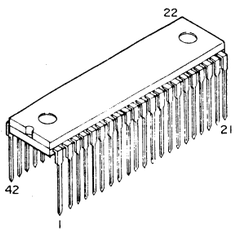
S5VB20



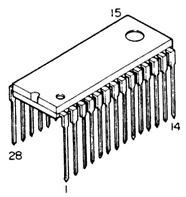
μPC1298V



2SB1373
2SD2066



LC7565



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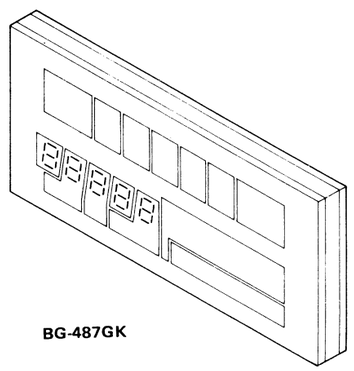
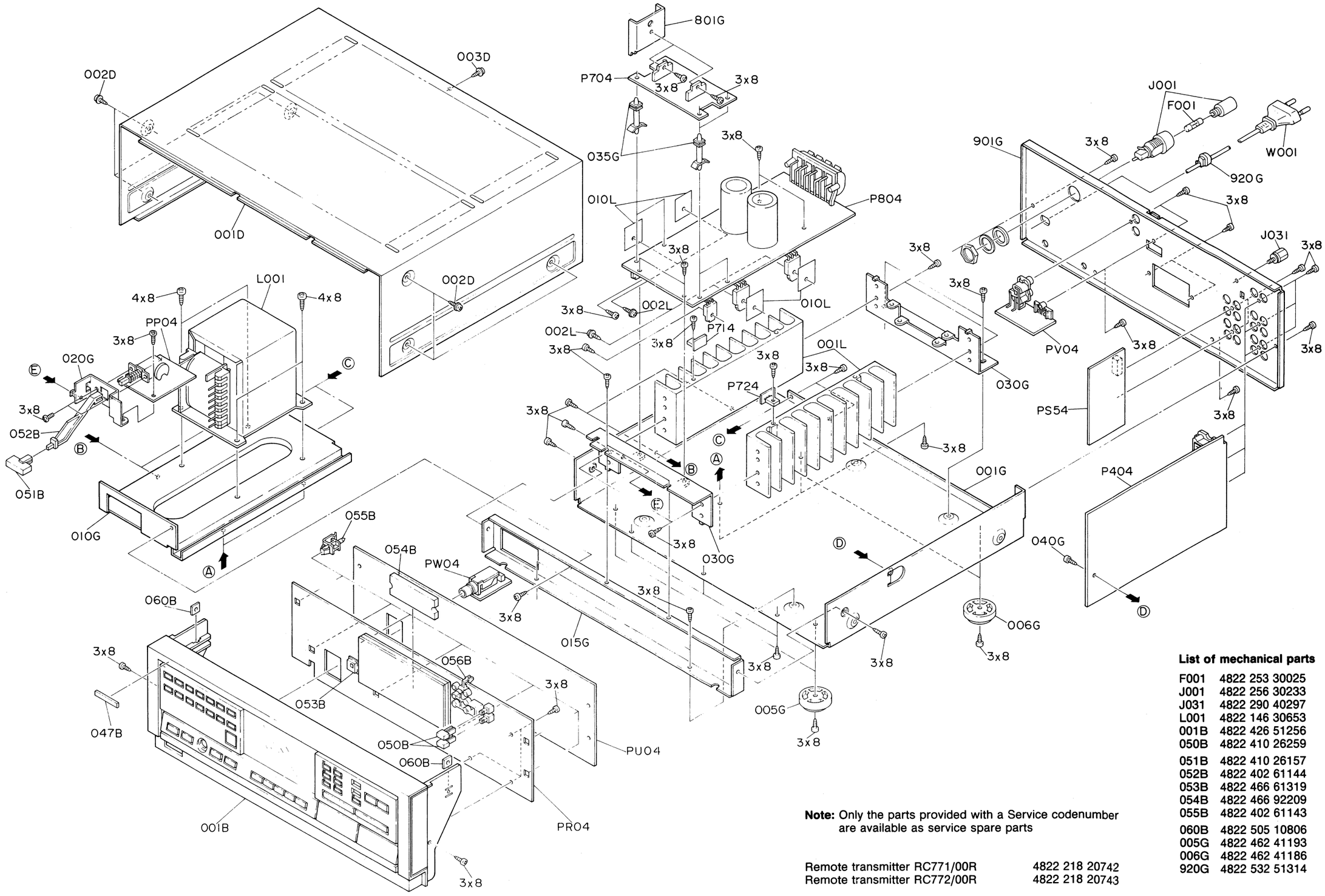


BG-487GK

EXPLODED VIEW



Note: Only the parts provided with a Service codenumber are available as service spare parts

Remote transmitter RC771/00R	4822 218 20742
Remote transmitter RC772/00R	4822 218 20743

List of mechanical parts

F001	4822 253 30025
J001	4822 256 30233
J031	4822 290 40297
L001	4822 146 30653
001B	4822 426 51256
050B	4822 410 26259
051B	4822 410 26157
052B	4822 402 61144
053B	4822 466 61319
054B	4822 466 92209
055B	4822 402 61143
060B	4822 505 10806
005G	4822 462 41193
006G	4822 462 41186
920G	4822 532 51314

LIST OF ELECTRICAL PARTS

Capacitors

CU01	Super cap 0.47F	4822 124 22481
GP01	Cap. cer. 0.01 µF 400 V	4822 122 40305
GU01	Cap. comp. 100 pF (5x)	4822 121 51191
C801,C802	Electr. cap. 8200 µF 63 V	4822 124 41296
C803	Cap. cer. 0.01 µF 500 V	4822 122 30043

Resistors

GE01,GE02 GX01,GX02	Res. comp.	100k	(7x)	4822 111 91398
GR01	Res. comp.	100k	(4x)	4822 111 91399
GX03	Res. comp.	100k	(11x)	4822 116 90313
RN12,RN13	Res. safety	820Ω	2 W	4822 116 60272
RX35	Res. safety	150 Ω	1 W	4822 116 60337
R415,R416	Res. safety	220 Ω	1/2 W	4822 111 90727
R711,R712 R715,R716	Res. fuse	10 Ω	1/4 W	4822 115 90166
R719,R720	Potm	4.7 k		4822 100 20524
R751,R752 R753,R754	Res. safety	4.7Ω	1/2 W	4822 116 52858
R755,R756	Res. comp.	0.1 Ω	(23x)	4822 111 91402
R765,R766	Res. safety	10 Ω	3 W	4822 116 60326
R767,R768	Res. safety	4.7 Ω	2 W	4822 116 52858
R771,R772	Res. safety	330 Ω	2 W	4822 116 60262
R801	Res. fuse	15 Ω	1/4 W	4822 116 60417
R802	Res. safety	1.5 k	1/2 W	4822 111 50479
R803	Res. safety	1k	2 W	4822 116 60332
R805	Res. fuse	6.8 Ω	1/2 W	4822 111 20384
R806	Res. safety	2.2 Ω	1/4 W	4822 116 52348

Transistors

2SA608SP, 2SA1048 2SA1309,A	4822 130 42715
2SA970	4822 130 42951
2SA970 (GR)	4822 130 42949
2SA1306 O.Y	4822 130 43023
2SB1373 (Q P)	4822 130 60928
2SC536SP,2SC2458 2SC3311,C	4822 130 42483
2SC2240 GR	4822 130 43231
2SC2240 GR or BL	4822 130 43233
2SC2878 A	4822 130 43818
2SC3419Y	4822 130 60117
2SD2066 (Q.P)	4822 130 60929

ICs

BA3812L	4822 209 83338
LC4966	4822 209 83804
LC6554H	4822 209 72352
LC7522	4822 209 71783
LC7535VR	4822 209 71784
LC7565FL	4822 209 71782
LC7821	4822 209 72357
NJM4558D-D	4822 209 83631
NJM7815	4822 209 83317
TA7317P	4822 209 83312
UPC-1298V	4822 209 70382

Diodes

LT3D8B red	4822 130 80326
RD5.1JB2,MTZJ5.1B	4822 130 80317
RD5.6JB2,MTZJ5.6B	4822 130 33948
RD6.8JB2,MTZJ6.8B	4822 130 80318
RD12JB2,MTZJ12C	4822 130 80091
RD16JB2,MTZJ16C	4822 130 80498
RD27EB4	4822 130 32757
RL103E,DSF10C	4822 130 32508
S5VB20	4822 130 30984
1SS133,1SS176	4822 130 33305
1S2070,1S2473	4822 130 31018

-Miscellaneous-

F001	Fuse 2A 250 V	4822 253 30025
JS01,JS02 JS71,JS72	Jack up	4822 265 30397
JV01	Jack 2p	4822 266 30274
JV02	Jack 5p	4822 267 40768
JW01	Headphone jack	4822 267 30596
J001	Fuse holder	4822 256 30233
J031	Ground terminal	4822 290 40297
J401	Socket 2p	4822 267 30741
J701	Plug 3p	4822 265 10078
J751	Speaker terminal	4822 290 60686
LN01,LN02	Relay DC 24V	4822 280 60511
L001	Mains transformer	4822 146 30653
L751,L752	Choke coil 1 µH	4822 157 51739
QR01	IR sensor for RC5	4822 130 10009
SP01	Push switch	4822 276 11798
SR01+SR36	Push switch	4822 276 11559
SR37,SR38	Push switch	4822 276 12336
SS71	Switch slide (stereo)	4822 277 21176
VR01	Display BG-487GK	4822 130 90494
XU01	Cer. filter 4 MHz	4822 242 71839

Phil. 3483

Service Information

	1988-08-31
	70FA777
	A88-242

Product Service Group CE Audio

Previously published A88 – 230

* In this Service Information you will find the, adapted, circuit diagrams for amplifier 70 FA 777.

- INPUT SELECTOR **P404 1/2** – TAPE IN/OUT **PS 74**
- EQUALLIZER AND VOLUME CONTROL **P404**
- PRE AMPLIFIER **P704** – OUTPUT STAGE AND POWER AMPLIFIER **P804**
- CONTROL AND DISPLAY **PR04 1/2** – MICROPROCESSOR **PU04 1/2**
- CONTROL AND DISPLAY (spectrum analyzer) **PR04 2/2** – MICROPROCESSOR **PU04 2/2.**

* Please make the following note under the P.C.B.'s in the Service Manual:

" PRINT TRACK SIDE "

REASON: Although the components have been drawn with uninterrupted lines on the PCB drawings, the view of the print is that of the track side.

Service
Service
Service

4822 725 42508

3483

| Q–D | | |

| | | |

Q – D	Q703,Q704 Q705,Q706 Q707 Q708 Q751÷Q754 D755,756,Q755,Q756 D751÷D754	Q – D
	DN03,DN04 D802÷D809 D801,Q801,D812÷D816,Q802,D810 D817 QN04,QN03,DN02,DN01 QN02 QN01	
C	701,702 703,704 707,708 705,706 711÷714 715,716 751÷754 755÷758	C
	809,810 803 812,813,805,811 804,801,802,814,815,806,808 N03,N04,N01 N05 N02	
R	701÷704 707,708 709,710,723,724 711÷720 727÷731 751÷754 755÷760 763,764 N16,N17 767,768 765,766 771,772	R
	805,801 802 803 N12÷N15 N10,N11,N01 N05÷N09 N04,N03 N02	
G–L–S–F	GP01,SP01 F001 L001 LN02,LN01 L751,L752 LN01 LN02	G–L–S–F

PRE–AMPLIFIER P704

OUTPUT STAGE AND POWER SUPPLY P804

FROM WG01 EQUALIZER AND VOLUME CONTROL P404–2/2

HEAD PHONE PW04

SPEAKERS SYSTEM B / SYSTEM A

– POWER SUPPLY –

– PROTECTION CIRCUIT –

TO WS03 EQUALIZER AND VOLUME CONTROL P404–2/2

TO JU01 MICRO PROCESSOR PU04–1/2

FROM JU01 MICRO–PROCESSOR PU04–1/2

TO JU05 MICRO–PROCESSOR PU04–1/2

43 818 E12

Q-D-V	DR01÷DR06	DR01÷DR06	VR01	DR07÷DR10,DR21,DR20	DR13,DR12	DR11	SR38,SR37	DR14	QR03,QR02,DR25,DR24	Q-D-V
	DU06 QU18,DU02,DX08	DU03 DU01	QR01 QU12÷QU15,QU01	DU07,QU08 QU07	QU17 QU16	QU04,DU14	QU05	DU12,QU06,QU02,DU13	QU10,QU03 DU04 QU11,DU05	
C	X24 U08 U03 U15	U04 U05 U06 U01 U02	R01 U17 U16	U13	U12 U11	U09	U10			C
R	R21÷R26				R11,R17,R16	R12	R31÷R36			R
	U53÷U55,X35 U02	U01	R18 U27÷U34 U42 U14,U4	U15÷U20	U13 U12	U36,U35,U11	U43,U26 U07	U08,U45 U09,U44	U10,U04 U05,U21,U06 U25,U24	
G-L-S-F-X	XU01	SR1÷SR36 GU02	GU01		GR01					G-L-S-F-X

CONTROL AND DISPLAY PR04-1/2

SPEAKER B SR16 A SR15

RR26 100k DR06 1SS133 1SS176

VOL. PRESET SR19 | MUTE SR20 | BALANCE R SR29 L SR28 | MEMO SR27 | VOLUME DOWN SR30 UP SR31

RR25 100k DR05 1SS133 1SS176

EQ/ ANAL. SR17 | EQ FLAT RESET SR18 | M4 SR26 | M3 SR25 | M2 SR24 | M1 SR23

RR24 100k DR04 1SS133 1SS176

15kHz DOWN SR14 | 6.3kHz DOWN SR12 | 2.5kHz DOWN SR10 | 1kHz DOWN SR08 | 400Hz DOWN SR06 | 150Hz DOWN SR04 | 64Hz DOWN SR02

RR23 100k DR03 1SS133 1SS176

15kHz UP SR13 | 6.3kHz UP SR11 | 2.5kHz UP SR09 | 1kHz UP SR07 | 400Hz UP SR05 | 150Hz UP SR03 | 64Hz UP SR01

RR22 100k DR02 1SS133 1SS176

MONITOR VIDEO SR21 | MONITOR TAPE SR22 | TV SR36 | AUX SR35 | CD SR34 | PHONO SR33 | TUNER SR32

RR21 100k DR01 1SS133 1SS176

VR01 B3-487GK

G7B G6B G5B G4B G3B

S1 COPY TAPE S3 S2 S1 VIDEO MON. TAPE VIDEO

SCB VOL. k j i h g f e d c b a G2B

BAL L R k j i h g f e d c b a G1B

5 G7B -27V 6 G6B -27V 7 G5B -27V 8 G4B -27V 9 G3B -27V

V_{F1} 1 2 -15.7V V_{F2} 49 50 -15.7V

G2B 10 5.7V G1B 11 -14V

16 17 21 20 23 24 19 18 22 25 26 SCA 18÷26 = -27V

S3 12 -27V S1 14 -27V S2 13 -27V SCB 15 4.5V 35 4.5V

GR01 100k

DR10 1SS133 1SS176 | DR09 1SS133 1SS176 | DR07 1SS133 1SS176 | DR08 1SS133 1SS176 | RR11 100k -V7

DR12 1SS133 1SS176

DR11 1SS133 1SS176

COPY TAPE → V/DAT SR38 VIDEO TAPE

COPY V/DAT → TAPE SR37 TAPE VIDEO

QR03 2SC536SP 2SC2458 | RR34 22k | RR35 47k | RR36 47k | DR25 1SS133 1SS176

QR02 2SC536SP 2SC2458 | RR31 22k | RR32 47k | RR33 47k | DR24 1SS133 1SS176

+V8 +V5 (+5V) (+15V) (+5V) (-27V) +V8 +V5 +V8 -V7

WU01-1 WU01-2 WU01-8 WU10-2 WU10-3 WU12-3 WU04-7 WU04-8 WU02-1 WU02-2 WU02-3 WU02-4 WU02-5 WU02-6 WU02-7 WU05-3 WU04-1 WU04-2 WU04-3 WU04-4 WU04-5 WU04-6 WU06-7 WU06-6 WU06-5 WU06-4 WU06-3 WU06-2 WU06-1 WU07-4 WU07-3 WU07-2 WU07-1

RR17 3.3k SPEAKERS A DR21 LT3D8B WU01-6 WU01-7

RR16 3.3k SPEAKERS B DR20 LT3D8B

RR12 680 VOL. PRESET DR13 LT3D8B WU12-1

RR13 680 MUTE DR14 LT3D8B WU12-2

WU01-3 WU01-4 WU01-5

FROM W801 OUTPUT STAGE AND POWER SUPPLY P804

JU01-1 ~ JU01-2 ~

GU02 100k

QU14 2SC536SP 2SC2458 | RU33 47k | RU34 47k | QU15 2SA608SP 2SA1048 | RU31 100k | CU17 1n | RU32 10k | -V7 -V7 -V7

QU12 2SC536SP 2SC2458 | RU29 47k | RU30 47k | QU13 2SA608SP 2SA1048 | RU27 100k | CU16 1n | RU28 10k | -V7 -V7 -V7

GU01 11x 100p -V7

QU01 LC6554H

I/O PORT A | I/O PORT B | I/O PORT N | I/O PORT O | I/O PORT M | I/O PORT L | I/O PORT K | I/O PORT D | I/O PORT F

CPU

ROM | RAM | OSC | I/O PORT F | I/O PORT E | I/O PORT C

FROM W801 OUTPUT STAGE AND POWER SUPPLY P804

JU01-6 +V8 (+5V) | JU01-5 +V7 (+5,6V) | JU01-4 +V5 (+15V) | JU01-3 -V5 (-15V) -V7 (-27V)

RX35 150 | CX24 220µ oc | DX08 RD5,6JB2 MTZJ5,6B | DU06 1SS133 1SS176 | CU08 220µ oc

FROM OUTPUT STAGE AND POWER SUPPLY P804

JU05 POWER ON/OFF | RU54 220k | RU53 47k | QU18 2SC536SP 2SC2458 | RU55 150k | DU02 1SS133 1SS176 | RU02 330k | CU03 0,22µ oG

Vp -27V 51 | XU01 4.0MHz 32 2.3V 33 | CU15 10µ oG -V7 | CU04 33p ΔΔG | CU05 33p ΔΔG

RES 34 5V | VDD 5V 64 +V7 | DU03 1SS133 1SS176 | RU01 100 | CU01 0.47F | CU06 1µ oG | DU01 1SS133 1SS176 | CU02 22n ΔΔG

TEST 30 | VSS 31 35 | 5V 50 | 49 +V8 | +V8 | 5.5V 48 | 0V 47 | 44 5V | 0V 27 | 0V 28 | 0V 26 | 29 5V 19

RU42 10k | RU14 10k | DU07 1SS133 1SS176 | RU04 10k | RU15 10k | QU07 2SA608SP 2SA1048 | RU13 100k | RU11 100k

RU20 2.2k | RU17 47 | RU116 2.2k | CU13 10n ΔΔG | RU12 100k | CU12 10n ΔΔG | CU11 10n ΔΔG

QU08 2SC536SP 2SC2458 | RU18 47k | RU19 22k | WU03-5 | JU03-1 | JU03-2 | JU03-7 | JU03-6 | JU03-4 | JU03-3

WU05-1

RU36 10k | QU17 | RU35 10k | QU16,QU17 2SC536SP 2SC2458 | RU26 47k | RU43 100k

RU07 47k | RU08 47k | RU09 47k | QU05,QU04 2SC536SP 2SC2458 | CU09 1µ oG | RU10 47k | QU06 2SA608SP 2SA1048

QU10 2SC536SP 2SC2458 | RU24 47k | RU25 47k | QU11 2SA608SP 2SA1048 | RU21 22k | CU10 4.7µ oG

QU03 2SA608SP 2SA1048 | RU04 47k | RU05 47k | RU06 47k | DU12 1S2070 1S2473 1S1555 | QU02 2SC536SP 2SC2458 | DU13 1SS133 1SS176 | DU04 1SS133 1SS176 | DU05 1SS133 1SS176

DU14 1SS133 1SS176 | RU45 10k | RU44 10k

TAPE COPY	JU02-1	TO WS01-1	INPUT SELECTOR P404-1/2
VIDEO COPY	JU02-2	TO WS01-2	
20dB MUTE	JU02-3	TO WS01-3	EQUALIZER AND VOLUME CONTROL P404-2/2
CE	JU02-7	TO WS02-2	
SPEAKERS A	JU01-7	TO WB01-7	OUTPUT STAGE AND POWER SUPPLY P804
SPEAKERS B	JU01-8	TO WB01-8	
CE	JU02-6	TO WS02-1	
VIDEO MON.	JU02-8	TO WS02-3	INPUT SELECTOR P404-1/2
MUTING	JU02-9	TO WS02-4	
DATA	JU02-5	TO WS01-5	EQUALIZER AND VOLUME CONTROL P404-2/2
CLOCK	JU02-4	TO WS01-4	
DATA	JU04-2	TO WE01	
CLOCK	JU04-1	TO WE01	
+V8 +5V	JU04-3	TO WE01	
DATA	1	TO MICRO-PROCESSOR PU04-2/2	
CLOCK	2		

MICRO PROCESSOR PU04-1/2

CONTROL AND DISPLAY PR04 — QR01 5V WU05-1 — +V8 RR18 100 4,9V — CR01 10µ oe

REMOTE PR04 — WV01-5 WV01-1 — IN — REMOTE CONTROL BUS JV01 — OUT — WV01-2 WV01-7 WV01-6 WV01-4 -3 WV01 — JV02 CONVENIENCE BUS

43 819 E12

| Q-D-V | | |